



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,368	04/15/2004	Toru Noguchi	119482	6615

25944 7590 07/27/2005

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
----------

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/824,368	Applicant(s) NOGUCHI ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.  
 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-18 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*Me*

### DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed June 9, 2005.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 7, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,438,932 to Sieron in view of US 6,046,806 to Thompson and in view of US 5,260,111 to Valaitis et al.

Re-claims 1, 7, 15, 16 and 18, Sieron teaches a seal formed of a rubber composition having at least 100 parts by weight of a fluoroelastomer and carbon black (as a filler or reinforcing agent, as known in the art), see column 2 lines 14-16 and lines 21-24 as well as figure

1. Sieron teaches that any type of fluoroelastomer may be used, see column 2 lines 14-16.

Art Unit: 3683

However, Sieron fails to provide a complete list of such fluoroelastomers. The seal taught by Sieron is capable of use as a piston seal in a caliper body.

Thompson teaches that ethylene propylene resins are a known fluoroelastomer, see column 4 lines 62-64. It would have been obvious to one of ordinary skill in the art to have known that ethylene-propylene is a fluoroelastomer as taught by Thompson and to have considered its use when having manufactured the seal of Sieron, so as to obtain performance characteristics associated with this material.

Sieron fails to teach using 100 parts by weight of the filler in the seal. Valaitis et al. teach the use of between 120 and 250 parts by weight of carbon black filler to 100 parts by weight of polymer (the polymer is clearly understood as being fluoroelastomer). It would have been obvious to one of ordinary skill in the art to have utilized the teachings of Valaitis et al. regarding the amount of filler to polymer by weight when having manufactured the seal of Sieron, thus optimizing the structural cohesion of the seal.

Re-claim 16, Sieron does not teach the use of process oil in the rubber composition.

5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sieron in view of Thompson and in view of Valaitis et al.

Re-claims 2-6, each of the recited limitations is interpreted by the examiner as an engineered design choice based in part upon the required performance characteristics. It would have been obvious to one of ordinary skill in the art as a matter of design choice to have provided the seal with the various recited limitations, since the applicant has not disclosed the limitations as solving any specific problem or is for any particular purpose and it appears that the

Art Unit: 3683

seal of Sieron would have performed equally well when having been modified to include the recited limitations.

6. Claims 8-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sieron in view of Thompson and in view of Valaitis as applied to claims 1-7 above, and further in view of US 5,076,593 to Sullivan et al.

Re-claims 8-14 and 17, Sieron fails to teach the seal utilized in a disc brake caliper. Sullivan et al. teaches a caliper disc brake having an annular seal that performs a rollback function. The disc brake has a cylinder bore, a piston disposed in the bore, wherein the seal is fitted into a ring shaped groove, the piston is inserted into the cylinder bore in a fluid tight manner. It would have been obvious to one of ordinary skill art to have utilized the seal of Sieron in a caliper disc brake as taught by Sullivan et al., thus providing a use for the seal.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yagi et al., Otsuji et al., Mizuno et al., JP 2002-348424, JP 2003-160692 and Simmons et al. each teach a rubber composition having the recited features of the instant invention.

9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128.

Art Unit: 3683

The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, can be reached at 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

July 25, 2005

THOMAS WILLIAMS  
PATENT EXAMINER

Thomas L. Williams

Art Unit 3683

7-25-05